

Sequence Listing

<110> Desnoyers, Luc

Eaton, Dan L.

Goddard, Audrey

Godowski, Paul J.

Gurney, Austin L.

Pan, James

Stewart, Timothy A.

Watanabe, Colin K.

Wood, William I.

Zhang, Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ACIDS ENCODING THE SAME

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Gln Thr Gly Gly Leu Pro Pro Asp Cys Ser Lys Cys Cys His Gly
35 40 45
Asp Tyr Ser Phe Arg Gly Tyr Gln Gly Pro Pro Gly Pro Pro Gly
50 55 60
Pro Pro Gly Ile Pro Gly Asn His Gly Asn Asn Gly Asn Asn Gly
65 70 75
Ala Thr Gly His Glu Gly Ala Lys Gly Glu Lys Gly Asp Lys Gly
80 85 90
Asp Leu Gly Pro Arg Gly Glu Arg Gly Gln His Gly Pro Lys Gly
95 100 105
Glu Lys Gly Tyr Pro Gly Ile Pro Pro Glu Leu Gln Ile Ala Phe
110 115 120
Met Ala Ser Leu Ala Thr His Phe Ser Asn Gln Asn Ser Gly Ile
125 130 135
Ile Phe Ser Ser Val Glu Thr Asn Ile Gly Asn Phe Phe Asp Val
140 145 150

Met Thr Gly Arg Phe Gly Ala Pro Val Ser Gly Val Tyr Phe Phe
155 160 165
Thr Phe Ser Met Met Lys His Glu Asp Val Glu Glu Val Tyr Val
170 175 180
Tyr Leu Met His Asn Gly Asn Thr Val Phe Ser Met Tyr Ser Tyr
185 190 195
Glu Met Lys Gly Lys Ser Asp Thr Ser Ser Asn His Ala Val Leu
200 205 210
Lys Leu Ala Lys Gly Asp Glu Val Trp Leu Arg Met Gly Asn Gly
215 220 225
Ala Leu His Gly Asp His Gln Arg Phe Ser Thr Phe Ala Gly Phe
230 235 240
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gcaaagggtgg agaaggcgttg gtgg 24

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Leu Asp Gly Phe Arg Ser Asp Tyr Ile Ser Asp Glu Ala Leu Glu
35 40 45
Ser Leu Pro Gly Phe Lys Glu Ile Val Ser Arg Gly Val Lys Val
50 55 60
Asp Tyr Leu Thr Pro Asp Phe Pro Ser Leu Ser Tyr Pro Asn Tyr
65 70 75
Tyr Thr Leu Met Thr Gly Arg His Cys Glu Val His Gln Met Ile
80 85 90
Gly Asn Tyr Met Trp Asp Pro Thr Thr Asn Lys Ser Phe Asp Ile
95 100 105
Gly Val Asn Lys Asp Ser Leu Met Pro Leu Trp Trp Asn Gly Ser

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125	130	135
Met Tyr Tyr Trp Pro Gly Cys Glu Val Glu Ile Leu Gly Val Arg		
140	145	150
Pro Thr Tyr Cys Leu Glu Tyr Lys Asn Val Pro Thr Asp Ile Asn		
155	160	165
Phe Ala Asn Ala Val Ser Asp Ala Leu Asp Ser Phe Lys Ser Gly		
170	175	180
Arg Ala Asp Leu Ala Ala Ile Tyr His Glu Arg Ile Asp Val Glu		
185	190	195
Gly His His Tyr Gly Pro Ala Ser Pro Gln Arg Lys Asp Ala Leu		
200	205	210
Lys Ala Val Asp Thr Val Leu Lys Tyr Met Thr Lys Trp Ile Gln		
215	220	225
Glu Arg Gly Leu Gln Asp Arg Leu Asn Val Ile Ile Phe Ser Asp		
230	235	240
His Gly Met Thr Asp Ile Phe Trp Met Asp Lys Val Ile Glu Leu		
245	250	255
Asn Lys Tyr Ile Ser Leu Asn Asp Leu Gln Gln Val Lys Asp Arg		
260	265	270
Gly Pro Val Val Ser Leu Trp Pro Ala Pro Gly Lys His Ser Glu		
275	280	285
Ile Tyr Asn Lys Leu Ser Thr Val Glu His Met Thr Val Tyr Glu		
290	295	300
Lys Glu Ala Ile Pro Ser Arg Phe Tyr Tyr Lys Lys Gly Lys Phe		
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Val Ser Pro Leu Thr Leu Val Ala Asp Glu Gly Trp Phe Ile Thr		
320	325	330
Glu Asn Arg Glu Met Leu Pro Phe Trp Met Asn Ser Thr Gly Arg		
335	340	345
Arg Glu Gly Trp Gln Arg Gly Trp His Gly Tyr Asp Asn Glu Leu		
350	355	360
Met Asp Met Arg Gly Ile Phe Leu Ala Phe Gly Pro Asp Phe Lys		
365	370	375
Ser Asn Phe Arg Ala Ala Pro Ile Arg Ser Val Asp Val Tyr Asn		
380	385	390
Val Met Cys Asn Val Val Gly Ile Thr Pro Leu Pro Asn Asn Gly		
395	400	405

Ser Trp Ser Arg Val Met Cys Met Leu Lys Gly Arg Ala Gly Thr
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Leu Phe Leu Leu Ala
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35 40 45
Gln Ala Pro Pro His Leu Leu Ala Arg Gly Ala Lys Trp Gly Gln
50 55 60
Ala Leu Pro Val Ala Leu Val Ser Ser Leu Glu Ala Ala Ser His
65 70 75
Arg Gly Arg His Glu Arg Pro Ser Ala Thr Thr Gln Cys Pro Val
80 85 90
Leu Arg Pro Glu Glu Val Leu Glu Ala Asp Thr His Gln Arg Ser
95 100 105
Ile Ser Pro Trp Arg Tyr Arg Val Asp Thr Asp Glu Asp Arg Tyr
110 115 120
Pro Gln Lys Leu Ala Phe Ala Glu Cys Leu Cys Arg Gly Cys Ile
125 130 135
Asp Ala Arg Thr Gly Arg Glu Thr Ala Ala Leu Asn Ser Val Arg
140 145 150
Leu Leu Gln Ser Leu Leu Val Leu Arg Arg Arg Pro Cys Ser Arg
155 160 165
Asp Gly Ser Gly Leu Pro Thr Pro Gly Ala Phe Ala Phe His Thr
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Glu Phe Ile His Val Pro Val Gly Cys Thr Cys Val Leu Pro Arg
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Ser Val

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<213> Homo Sapien

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20 25 30

Phe Gly Gly Cys Ser His Gly Ser Arg Cys Leu Arg Asp Ser Thr
35 40 45

His Cys Val Thr Thr Ala Thr Arg Val Leu Ser Asn Thr Glu Asp
50 55 60

Leu Pro Leu Val Thr Lys Met Cys His Ile Gly Cys Pro Asp Ile
65 70 75

Pro Ser Leu Gly Leu Gly Pro Tyr Val Ser Ile Ala Cys Cys Gln
80 85 90

Thr Ser Leu Cys Asn His Asp
95

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<212> DNA

<213> Homo Sapien

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<210> 18
<211> 273
<212> PRT
<213> Homo Sapien

<400> 18
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Cys Phe Ala Asp Phe Lys His Pro Cys Tyr Lys Met Ala Tyr Phe
35 40 45
His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala
50 55 60
Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala
65 70 75
Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro
80 85 90
Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg
95 100 105
Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln
110 115 120
Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp
125 130 135
Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln
140 145 150
Pro Thr Ala Asn Pro Gly Leu Gly Pro Tyr Leu Tyr Gln Trp
155 160 165
Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr

170 175 180
Glu Pro Glu Ile Asn Pro Thr Ala Pro Val Glu Lys Pro Tyr Leu
185 190 195
Thr Asn Gln Pro Gly Asp Thr His Gln Asn Val Val Val Thr Glu
200 205 210
Ala Gly Ile Ile Pro Asn Leu Ile Tyr Val Val Ile Pro Thr Ile
215 220 225
Pro Leu Leu Leu Leu Ile Leu Val Ala Phe Gly Thr Cys Cys Phe
230 235 240
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Gln Ser Thr Leu Trp Ile Ser Lys Ser Thr Arg Lys Glu Ser Gly
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Met Glu Val

<210> 19
<211> 24
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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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caccaaccaa ctgccaatcc tggc 24

<210> 20
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 20
accacattct gatgggtgtc tcctgg 26

<210> 21
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
gggtccctac cttaaccagt ggaatgatga caggtgtaac atgaagcac 49

<210> 22
<211> 3824

<212> DNA
<213> Homo Sapien

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<211> 571

<212> PRT

<213> Homo Sapien

<400> 23

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Val Cys Leu Leu Leu Ala Cys Pro Ala Thr Ala Thr Gly Pro Glu
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Val Ala Gln Pro Glu Val Asp Thr Thr Leu Gly Arg Val Arg Gly
35 40 45

Arg Gln Val Gly Val Lys Gly Thr Asp Arg Leu Val Asn Val Phe

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Leu Gly Ile Pro Phe Ala Gln Pro Pro	Leu Gly Pro Asp Arg Phe	
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Ser Ala Pro His Pro Ala Gln Pro Trp	Glu Gly Val Arg Asp Ala	
80	85	90
Ser Thr Ala Pro Pro Met Cys	Leu Gln Asp Val Glu Ser Met Asn	
95	100	105
Ser Ser Arg Phe Val Leu Asn Gly Lys	Gln Gln Ile Phe Ser Val	
110	115	120
Ser Glu Asp Cys	Leu Val Leu Asn Val Tyr Ser Pro Ala Glu Val	
125	130	135
Pro Ala Gly Ser Gly Arg Pro Val Met Val	Trp Val His Gly Gly	
140	145	150
Ala Leu Ile Thr Gly Ala Ala Thr Ser	Tyr Asp Gly Ser Ala Leu	
155	160	165
Ala Ala Tyr Gly Asp Val Val Val Val	Thr Val Gln Tyr Arg Leu	
170	175	180
Gly Val Leu Gly Phe Phe Ser Thr Gly Asp	Glu His Ala Pro Gly	
185	190	195
Asn Gln Gly Phe Leu Asp Val Val Ala	Ala Leu Arg Trp Val Gln	
200	205	210
Glu Asn Ile Ala Pro Phe Gly Gly Asp	Leu Asn Cys Val Thr Val	
215	220	225
Phe Gly Gly Ser Ala Gly Gly Ser Ile	Ile Ser Gly Leu Val Leu	
230	235	240
Ser Pro Val Ala Ala Gly Leu Phe His	Arg Ala Ile Thr Gln Ser	
245	250	255
Gly Val Ile Thr Thr Pro Gly Ile Ile Asp	Ser His Pro Trp Pro	
260	265	270
Leu Ala Gln Lys Ile Ala Asn Thr Leu	Ala Cys Ser Ser Ser Ser	
275	280	285
Pro Ala Glu Met Val Gln Cys Leu Gln	Lys Glu Gly Glu Glu	
290	295	300
Leu Val Leu Ser Lys Lys Leu Lys Asn	Thr Ile Tyr Pro Leu Thr	
305	310	315
Val Asp Gly Thr Val Phe Pro Lys Ser	Pro Lys Glu Leu Leu Lys	
320	325	330
Glu Lys Pro Phe His Ser Val Pro Phe	Leu Met Gly Val Asn Asn	
335	340	345

His	Glu	Phe	Ser	Trp	Leu	Ile	Pro	Arg	Gly	Trp	Gly	Leu	Leu	Asp	
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Thr	Met	Glu	Gln	Met	Ser	Arg	Glu	Asp	Met	Leu	Ala	Ile	Ser	Thr	
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Pro	Val	Leu	Thr	Ser	Leu	Asp	Val	Pro	Pro	Glu	Met	Met	Pro	Thr	
	380								385					390	
Val	Ile	Asp	Glu	Tyr	Leu	Gly	Ser	Asn	Ser	Asp	Ala	Gln	Ala	Lys	
									400					405	
Cys	Gln	Ala	Phe	Gln	Glu	Phe	Met	Gly	Asp	Val	Phe	Ile	Asn	Val	
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Pro	Thr	Val	Ser	Phe	Ser	Arg	Tyr	Leu	Arg	Asp	Ser	Gly	Ser	Pro	
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Val	Phe	Phe	Tyr	Glu	Phe	Gln	His	Arg	Pro	Ser	Ser	Phe	Ala	Lys	
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Ile	Lys	Pro	Ala	Trp	Val	Lys	Ala	Asp	His	Gly	Ala	Glu	Gly	Ala	
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Phe	Val	Phe	Gly	Gly	Pro	Phe	Leu	Met	Asp	Glu	Ser	Ser	Arg	Leu	
									475					480	
Ala	Phe	Pro	Glu	Ala	Thr	Glu	Glu	Glu	Lys	Gln	Leu	Ser	Leu	Thr	
									490					495	
Met	Met	Ala	Gln	Trp	Thr	His	Phe	Ala	Arg	Thr	Gly	Asp	Pro	Asn	
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Ser	Lys	Ala	Leu	Pro	Pro	Trp	Pro	Gln	Phe	Asn	Gln	Ala	Glu	Gln	
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Tyr	Leu	Glu	Ile	Asn	Pro	Val	Pro	Arg	Ala	Gly	Gln	Lys	Phe	Arg	
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Glu	Ala	Trp	Met	Gln	Phe	Trp	Ser	Glu	Thr	Leu	Pro	Ser	Lys	Ile	
									550					555	
Gln	Gln	Trp	His	Gln	Lys	Gln	Lys	Asn	Arg	Lys	Ala	Gln	Glu	Asp	
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Leu															

<210> 24
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 24
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<210> 25
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
gggtggactg tgctctaattt gacgc 25

<210> 26
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtggcactg ggtttgatc 18

<210> 27
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
gatgcagttc tggtcagaga cgctcccccag caagatacaa cagtg 45

<210> 28
<211> 1342
<212> DNA
<213> Homo Sapien

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<210> 29

<211> 209

<212> PRT

<213> Homo Sapien

<400> 29

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Thr	Leu	Phe	Leu	Leu	Gln	Leu	Lys	Phe	Leu	Lys	Pro	Lys	Ile	Asn
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Ser	Phe	Tyr	Ala	Phe	Glu	Val	Lys	Asp	Ala	Lys	Gly	Arg	Thr	Val
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Ser	Leu	Glu	Lys	Tyr	Lys	Gly	Lys	Val	Ser	Leu	Val	Val	Asn	Val
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Ala	Ser	Asp	Cys	Gln	Leu	Thr	Asp	Arg	Asn	Tyr	Leu	Gly	Leu	Lys
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Glu Leu His Lys Glu Phe Gly Pro Ser His Phe Ser Val Leu Ala
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Phe Pro Cys Asn Gln Phe Gly Glu Ser Glu Pro Arg Pro Ser Lys
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Glu Val Glu Ser Phe Ala Arg Lys Asn Tyr Gly Val Thr Phe Pro
125 130 135
Ile Phe His Lys Ile Lys Ile Leu Gly Ser Glu Gly Glu Pro Ala
140 145 150
Phe Arg Phe Leu Val Asp Ser Ser Lys Lys Glu Pro Arg Trp Asn
155 160 165
Phe Trp Lys Tyr Leu Val Asn Pro Glu Gly Gln Val Val Lys Phe
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<210> 30

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<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 31

gtatcttgtc aaccctgagg 20

<210> 32

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 32

taaccagagc tgctatgtca ggcc 24

<210> 33

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<212> DNA
<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<211> 3721
<212> DNA
<213> Homo Sapien

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aaaaaaaaaaaa aaaaaaaaaa a 3721

<210> 35
<211> 888
<212> PRT
<213> Homo Sapien

<400> 35
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					20				25					30
Pro	Pro	Pro	Leu	Ser	Val	Ala	Pro	Arg	Asp	Tyr	Leu	Asn	His	Tyr
					35				40					45
Pro	Val	Phe	Val	Gly	Ser	Gly	Pro	Gly	Arg	Leu	Thr	Pro	Ala	Glu
				50					55					60
Gly	Ala	Asp	Asp	Leu	Asn	Ile	Gln	Arg	Val	Leu	Arg	Val	Asn	Arg
					65				70					75
Thr	Leu	Phe	Ile	Gly	Asp	Arg	Asp	Asn	Leu	Tyr	Arg	Val	Glu	Leu
					80				85					90
Glu	Pro	Pro	Thr	Ser	Thr	Glu	Leu	Arg	Tyr	Gln	Arg	Lys	Leu	Thr
					95				100					105
Trp	Arg	Ser	Asn	Pro	Ser	Asp	Ile	Asn	Val	Cys	Arg	Met	Lys	Gly
					110				115					120
Lys	Gln	Glu	Gly	Glu	Cys	Arg	Asn	Phe	Val	Lys	Val	Leu	Leu	Leu
					125				130					135
Arg	Asp	Glu	Ser	Thr	Leu	Phe	Val	Cys	Gly	Ser	Asn	Ala	Phe	Asn
					140				145					150
Pro	Val	Cys	Ala	Asn	Tyr	Ser	Ile	Asp	Thr	Leu	Gln	Pro	Val	Gly
					155				160					165
Asp	Asn	Ile	Ser	Gly	Met	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Lys	His
					170				175					180
Ala	Asn	Val	Ala	Leu	Phe	Ser	Asp	Gly	Met	Leu	Phe	Thr	Ala	Thr
					185				190					195
Val	Thr	Asp	Phe	Leu	Ala	Ile	Asp	Ala	Val	Ile	Tyr	Arg	Ser	Leu
					200				205					210
Gly	Asp	Arg	Pro	Thr	Leu	Arg	Thr	Val	Lys	His	Asp	Ser	Lys	Trp
					215				220					225
Phe	Lys	Glu	Pro	Tyr	Phe	Val	His	Ala	Val	Glu	Trp	Gly	Ser	His
					230				235					240
Val	Tyr	Phe	Phe	Phe	Arg	Glu	Ile	Ala	Met	Glu	Phe	Asn	Tyr	Leu
					245				250					255
Glu	Lys	Val	Val	Val	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp
					260				265					270
Val	Gly	Gly	Ser	Pro	Arg	Val	Leu	Glu	Lys	Gln	Trp	Thr	Ser	Phe
					275				280					285
Leu	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Val	Pro	Gly	Asp	Ser	His	Phe
					290				295					300
Tyr	Phe	Asn	Val	Leu	Gln	Ala	Val	Thr	Gly	Val	Val	Ser	Leu	Gly

305	310	315
Gly Arg Pro Val Val Leu Ala Val Phe Ser Thr Pro Ser Asn Ser		
320	325	330
Ile Pro Gly Ser Ala Val Cys Ala Phe Asp Leu Thr Gln Val Ala		
335	340	345
Ala Val Phe Glu Gly Arg Phe Arg Glu Gln Lys Ser Pro Glu Ser		
350	355	360
Ile Trp Thr Pro Val Pro Glu Asp Gln Val Pro Arg Pro Arg Pro		
365	370	375
Gly Cys Cys Ala Ala Pro Gly Met Gln Tyr Asn Ala Ser Ser Ala		
380	385	390
Leu Pro Asp Asp Ile Leu Asn Phe Val Lys Thr His Pro Leu Met		
395	400	405
Asp Glu Ala Val Pro Ser Leu Gly His Ala Pro Trp Ile Leu Arg		
410	415	420
Thr Leu Met Arg His Gln Leu Thr Arg Val Ala Val Asp Val Gly		
425	430	435
Ala Gly Pro Trp Gly Asn Gln Thr Val Val Phe Leu Gly Ser Glu		
440	445	450
Ala Gly Thr Val Leu Lys Phe Leu Val Arg Pro Asn Ala Ser Thr		
455	460	465
Ser Gly Thr Ser Gly Leu Ser Val Phe Leu Glu Glu Phe Glu Thr		
470	475	480
Tyr Arg Pro Asp Arg Cys Gly Arg Pro Gly Gly Glu Thr Gly		
485	490	495
Gln Arg Leu Leu Ser Leu Glu Leu Asp Ala Ala Ser Gly Gly Leu		
500	505	510
Leu Ala Ala Phe Pro Arg Cys Val Val Arg Val Pro Val Ala Arg		
515	520	525
Cys Gln Gln Tyr Ser Gly Cys Met Lys Asn Cys Ile Gly Ser Gln		
530	535	540
Asp Pro Tyr Cys Gly Trp Ala Pro Asp Gly Ser Cys Ile Phe Leu		
545	550	555
Ser Pro Gly Thr Arg Ala Ala Phe Glu Gln Asp Val Ser Gly Ala		
560	565	570
Ser Thr Ser Gly Leu Gly Asp Cys Thr Gly Leu Leu Arg Ala Ser		
575	580	585
Leu Ser Glu Asp Arg Ala Gly Leu Val Ser Val Asn Leu Leu Val		
590	595	600

Thr Ser Ser Val Ala Ala Phe Val Val Gly Ala Val Val Ser Gly
 605 610 615
 Phe Ser Val Gly Trp Phe Val Gly Leu Arg Glu Arg Arg Glu Leu
 620 625 630
 Ala Arg Arg Lys Asp Lys Glu Ala Ile Leu Ala His Gly Ala Gly
 635 640 645
 Glu Ala Val Leu Ser Val Ser Arg Leu Gly Glu Arg Arg Ala Gln
 650 655 660
 Gly Pro Gly Gly Arg Gly Gly Gly Gly Gly Ala Gly Val
 665 670 675
 Pro Pro Glu Ala Leu Leu Ala Pro Leu Met Gln Asn Gly Trp Ala
 680 685 690
 Lys Ala Thr Leu Leu Gln Gly Gly Pro His Asp Leu Asp Ser Gly
 695 700 705
 Leu Leu Pro Thr Pro Glu Gln Thr Pro Leu Pro Gln Lys Arg Leu
 710 715 720
 Pro Thr Pro His Pro His Pro His Ala Leu Gly Pro Arg Ala Trp
 725 730 735
 Asp His Gly His Pro Leu Leu Pro Ala Ser Ala Ser Ser Ser Leu
 740 745 750
 Leu Leu Leu Ala Pro Ala Arg Ala Pro Glu Gln Pro Pro Ala Pro
 755 760 765
 Gly Glu Pro Thr Pro Asp Gly Arg Leu Tyr Ala Ala Arg Pro Gly
 770 775 780
 Arg Ala Ser His Gly Asp Phe Pro Leu Thr Pro His Ala Ser Pro
 785 790 795
 Asp Arg Arg Arg Val Val Ser Ala Pro Thr Gly Pro Leu Asp Pro
 800 805 810
 Ala Ser Ala Ala Asp Gly Leu Pro Arg Pro Trp Ser Pro Pro Pro
 815 820 825
 Thr Gly Ser Leu Arg Arg Pro Leu Gly Pro His Ala Pro Pro Ala
 830 835 840
 Ala Thr Leu Arg Arg Thr His Thr Phe Asn Ser Gly Glu Ala Arg
 845 850 855
 Pro Gly Asp Arg His Arg Gly Cys His Ala Arg Pro Gly Thr Asp
 860 865 870
 Leu Ala His Leu Leu Pro Tyr Gly Gly Ala Asp Arg Thr Ala Pro
 875 880 885
 Pro Val Pro

<210> 36
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 36
gaggacctac cggccggaca g 21

<210> 37
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 37
atacaccccg agtactgctg gcag 24

<210> 38
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 38
agacagggca gcggctgctg agcttggagc tggacgcagc tt 42

<210> 39
<211> 2014
<212> DNA
<213> Homo Sapien

<400> 39
agcaactcaa gttcatcatt gtcctgagag agaggagcag cgcggttctc 50
ggccgggaca gcagaacgcc aggggaccct cacctggcg cgcggggca 100
cgggcttga ttgtcctgg gtcgcggaga cccgcgcgcc tgccctgcac 150
gccgggcggc aaccttgca gtcgcgttgg ctgctgcgtat cggccggcgg 200
gtccctgccc aaggctcggc tgcttctgtc cacctcttac acttcttcat 250
ttatcggtgg atcatttcga gagtccgtct tgtaaatgtt tggactttg 300
ctactttatt gcttcttct ggcgacagtt ccagcactcg ccgagaccgg 350
cgagaaaaagg cagctgagcc cggagaagag cgaaatatgg ggacccgggc 400
taaaagcaga cgtcgtcctt cccgccccgtt atttctatat tcaggcagt 450

gatacatcag ggaataaatt cacatcttct ccaggcgaaa aggtcttcca 500
ggtaaagtc tcagcaccag aggagcaatt cactagagtt ggagtccagg 550
tttagaccg aaaagatggg tccttcata tagatacag aatgtatgca 600
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caaatccccca tatatttaa aaggccggt ttaccatgag aactgtgact 700
gtcctctgca agatagtgc gcctggctac gggagatgaa ctgcctgaa 750
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tatgtcacta caccttaaag gataacaagg tttatataa gactcatggt 900
gaacatgtag gttttagaaat tttcatggat gccatactac tttctttgac 950
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ggcctttgga aaaaaagaaa tccaattcaa acatccatcc gatctttcc 1050
tggtgtggct ccacagattc caaggatatc gtatgccta cgtacgatt 1100
gactgattct gttctggaaa ccatggcccg ggtaagtctg gatatgatgt 1150
ccgtgcaagc taacacgggt cctccctggg aaagaaaaaa ttccactgcc 1200
gtctggagag ggcgagacag ccgcaaagag agactcgagc tggtaaact 1250
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tcttaaaca cgatgaaaac ctgtatggtc ccattgtgaa acatattca 1350
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agcaggattc catctactat gaacatttt acaatgagct gcagccctgg 1500
aaacactaca ttccagttaa gagcaacctg agcgatctgc tagaaaaact 1550
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gacaagaatt tgcaagaaat aatctcatgg gcgtatgacat attctgttat 1650
tatttcaaac tttccagga atatgccaat ttacaagtga gtgagcccc 1700
aatccgagag ggcgtggaaaa gggtagaacc acagactgag gacgacctct 1750
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aaataacttc tattagaata atggtgctct gaagactctt cttactaaa 1850
aagaagaatt ttttaagta ttaattccat ggacaatata aatctgtgt 1900

gattgtttgc agtatgaaga cacatttctta cttatgcagt attctcatga 1950
ctgtacttta aagtacattt tttagaatttt ataataaaac cacctttatt 2000
ttaaaggaaa aaaa 2014

<210> 40
<211> 502
<212> PRT
<213> Homo Sapien

<400> 40
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20 25 30
Lys Ser Glu Ile Trp Gly Pro Gly Leu Lys Ala Asp Val Val Leu
35 40 45
Pro Ala Arg Tyr Phe Tyr Ile Gln Ala Val Asp Thr Ser Gly Asn
50 55 60
Lys Phe Thr Ser Ser Pro Gly Glu Lys Val Phe Gln Val Lys Val
65 70 75
Ser Ala Pro Glu Glu Gln Phe Thr Arg Val Gly Val Gln Val Leu
80 85 90
Asp Arg Lys Asp Gly Ser Phe Ile Val Arg Tyr Arg Met Tyr Ala
95 100 105
Ser Tyr Lys Asn Leu Lys Val Glu Ile Lys Phe Gln Gly Gln His
110 115 120
Val Ala Lys Ser Pro Tyr Ile Leu Lys Gly Pro Val Tyr His Glu
125 130 135
Asn Cys Asp Cys Pro Leu Gln Asp Ser Ala Ala Trp Leu Arg Glu
140 145 150
Met Asn Cys Pro Glu Thr Ile Ala Gln Ile Gln Arg Asp Leu Ala
155 160 165
His Phe Pro Ala Val Asp Pro Glu Lys Ile Ala Val Glu Ile Pro
170 175 180
Lys Arg Phe Gly Gln Arg Gln Ser Leu Cys His Tyr Thr Leu Lys
185 190 195
Asp Asn Lys Val Tyr Ile Lys Thr His Gly Glu His Val Gly Phe
200 205 210
Arg Ile Phe Met Asp Ala Ile Leu Leu Ser Leu Thr Arg Lys Val
215 220 225
Lys Met Pro Asp Val Glu Leu Phe Val Asn Leu Gly Asp Trp Pro

230	235	240
Leu Glu Lys Lys Lys Ser Asn Ser Asn Ile His Pro Ile Phe Ser		
245	250	255
Trp Cys Gly Ser Thr Asp Ser Lys Asp Ile Val Met Pro Thr Tyr		
260	265	270
Asp Leu Thr Asp Ser Val Leu Glu Thr Met Gly Arg Val Ser Leu		
275	280	285
Asp Met Met Ser Val Gln Ala Asn Thr Gly Pro Pro Trp Glu Ser		
290	295	300
Lys Asn Ser Thr Ala Val Trp Arg Gly Arg Asp Ser Arg Lys Glu		
305	310	315
Arg Leu Glu Leu Val Lys Leu Ser Arg Lys His Pro Glu Leu Ile		
320	325	330
Asp Ala Ala Phe Thr Asn Phe Phe Phe Lys His Asp Glu Asn		
335	340	345
Leu Tyr Gly Pro Ile Val Lys His Ile Ser Phe Phe Asp Phe Phe		
350	355	360
Lys His Lys Tyr Gln Ile Asn Ile Asp Gly Thr Val Ala Ala Tyr		
365	370	375
Arg Leu Pro Tyr Leu Leu Val Gly Asp Ser Val Val Leu Lys Gln		
380	385	390
Asp Ser Ile Tyr Tyr Glu His Phe Tyr Asn Glu Leu Gln Pro Trp		
395	400	405
Lys His Tyr Ile Pro Val Lys Ser Asn Leu Ser Asp Leu Leu Glu		
410	415	420
Lys Leu Lys Trp Ala Lys Asp His Asp Glu Glu Ala Lys Lys Ile		
425	430	435
Ala Lys Ala Gly Gln Glu Phe Ala Arg Asn Asn Leu Met Gly Asp		
440	445	450
Asp Ile Phe Cys Tyr Tyr Phe Lys Leu Phe Gln Glu Tyr Ala Asn		
455	460	465
Leu Gln Val Ser Glu Pro Gln Ile Arg Glu Gly Met Lys Arg Val		
470	475	480
Glu Pro Gln Thr Glu Asp Asp Leu Phe Pro Cys Thr Cys His Arg		
485	490	495
Lys Lys Thr Lys Asp Glu Leu		
500		

<210> 41
<211> 26

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 41
gaaggtggaa attaaattcc aagggc 26

<210> 42
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 42
cgataagctg ctacagtgcc atcg 24

<210> 43
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
gtgactgtcc tctgcaagat agtgcagcct ggctacggga 40

<210> 44
<211> 2395
<212> DNA
<213> Homo Sapien

<400> 44
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tcgctacctg ttgcgttagcg atcgaggtgc taggatcgc ggtttccctt 150
cggggattct tcccggctcc cgttcgttcc tctgcccagag cggAACACGG 200
acggggagccc ccagcgcccg aaccctcgcc tggagccagt tctaactgga 250
ccacgcgtgcc accacctctc ttcaaaaaaaatgttattgt tctgatagat 300
gccttgagag atgattttgt gttgggtca aagggtgtga aatttatgcc 350
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gggagccttc ctggctttgt cgacgtcatc aggaacctca atttcctgc 500
actgctggaa gacagtgtga taagacaagc aaaagcagct gaaaaaagaa 550

tagtcttta tggagatgaa acctgggtta aattattccc aaagcatttt 600
gtggaatatg atggaacaac ctcattttc gtgtcagatt acacagaggt 650
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gggacatatt aatcctccac tacctgggc tggaccacat tggccacatt 750
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ggaagtcacg gggcctcctc caccgaggag gtgaatacac ctctgatttt 950
aatcagttct gcgtttgaaa gaaacccgg tgatatccga catccaaagc 1000
acgtccaata gacggatgtg gctgcacac tggcgatagc acttggctta 1050
ccgattccaa aagacagtgt agggagcctc ctattccag ttgttgaagg 1100
aagaccaatg agagagcagt tgagatttt acattgaat acagtgcagc 1150
ttagtaaact gttgcaagag aatgtgccgt catatgaaaa agatcctggg 1200
tttgcggcgt taaaatgtc agaaagattt catggaaact ggatcagact 1250
gtacttggag gaaaagcatt cagaagtcctt attcaacctg ggctccaagg 1300
ttctcaggca gtacctggat gctctgaaga cgctgagctt gtccctgagt 1350
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gcctcatcag gtccagattt ctttccaagg cggacgtttt ctgttggaaat 2000

tcttagtcct tggcctcgga cacttcatt cgtagctgg ggagtggtgg 2050
tgaggcagtg aagaagaggc ggatggtcac actcagatcc acagagccca 2100
ggatcaaggg acccaactgca gtggcagcag gactgttggg cccccacccc 2150
aaccctgcac agccctcatc ccctcttggc ttgagccgtc agaggccctg 2200
tgctgagtgt ctgaccgaga cactcacagc tttgtcatca gggcacaggg 2250
ttcctcgag ccaggatgat ctgtgccacg cttgcacctc gggcccatct 2300
gggctcatgc tctctctcct gctattgaat tagtacctag ctgcacacag 2350
tatgttagtta cccaaagaat aaacggcaat aattgagaaa aaaaa 2395

<210> 45
<211> 310
<212> PRT
<213> Homo Sapien

<400> 45
Met Arg Leu Gly Ser Gly Thr Phe Ala Thr Cys Cys Val Ala Ile
1 5 10 15
Glu Val Leu Gly Ile Ala Val Phe Leu Arg Gly Phe Phe Pro Ala
20 25 30
Pro Val Arg Ser Ser Ala Arg Ala Glu His Gly Ala Glu Pro Pro
35 40 45
Ala Pro Glu Pro Ser Ala Gly Ala Ser Ser Asn Trp Thr Thr Leu
50 55 60
Pro Pro Pro Leu Phe Ser Lys Val Val Ile Val Leu Ile Asp Ala
65 70 75
Leu Arg Asp Asp Phe Val Phe Gly Ser Lys Gly Val Lys Phe Met
80 85 90
Pro Tyr Thr Thr Tyr Leu Val Glu Lys Gly Ala Ser His Ser Phe
95 100 105
Val Ala Glu Ala Lys Pro Pro Thr Val Thr Met Pro Arg Ile Lys
110 115 120
Ala Leu Met Thr Gly Ser Leu Pro Gly Phe Val Asp Val Ile Arg
125 130 135
Asn Leu Asn Ser Pro Ala Leu Leu Glu Asp Ser Val Ile Arg Gln
140 145 150
Ala Lys Ala Ala Gly Lys Arg Ile Val Phe Tyr Gly Asp Glu Thr
155 160 165
Trp Val Lys Leu Phe Pro Lys His Phe Val Glu Tyr Asp Gly Thr
170 175 180

Thr Ser Phe Phe Val Ser Asp Tyr Thr Glu Val Asp Asn Asn Val
185 190 195
Thr Arg His Leu Asp Lys Val Leu Lys Arg Gly Asp Trp Asp Ile
200 205 210
Leu Ile Leu His Tyr Leu Gly Leu Asp His Ile Gly His Ile Ser
215 220 225
Gly Pro Asn Ser Pro Leu Ile Gly Gln Lys Leu Ser Glu Met Asp
230 235 240
Ser Val Leu Met Lys Ile His Thr Ser Leu Gln Ser Lys Glu Arg
245 250 255
Glu Thr Pro Leu Pro Asn Leu Leu Val Leu Cys Gly Asp His Gly
260 265 270
Met Ser Glu Thr Gly Ser His Gly Ala Ser Ser Thr Glu Glu Val
275 280 285
Asn Thr Pro Leu Ile Leu Ile Ser Ser Ala Phe Glu Arg Lys Pro
290 295 300
Gly Asp Ile Arg His Pro Lys His Val Gln
305 310

<210> 46

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 46

cgggactttc gctaccgtt gc 22

<210> 47

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 47

catcatattc cacaaaatgc tttggg 26

<210> 48

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ccttcgggga ttcttcccggtccggttcg ttccctctg 38

<210> 49
<211> 918
<212> DNA
<213> Homo Sapien

<400> 49
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agcaatggca atgggggtcc ccagagtcat tctgctctgc ctctttgggg 100
ctgcgcctcg cctgacaggg tcccaagccc tgcagtgcta cagctttgag 150
cacacctaact ttggccctt tgacctcagg gccatgaagc tgcccagcat 200
ctcctgtcct catgagtgtct ttgaggctat cctgtctctg gacaccgggt 250
atcgcgcgcc ggtgaccctg gtgcggaaagg gctgctggac cgggcctcct 300
gcgggcccaga cgcaatcgaa cccggacgcg ctgcccggcag actactcggt 350
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acgcctccc caacctgagc caagcaccccg acccgccgac gctcagcgcc 450
gccgagtgtct acgcctgtat cggggtccac caggatgact gcgctatcg 500
caggtcccga cgagtccagt gtcaccagga ccagaccgccc tgcttccagg 550
gcagtggcag aatgacagtt ggcaatttct cagtcctgtt gtacatcaga 600
acctgccacc ggccctcctg caccaccgag ggcaccacca gcccctggac 650
agccatcgac ctccagggtct cctgctgtga ggggtacccctc tgcaacagga 700
aatccatgac ccagcccttc accagtgttt cagccaccac ccctccccga 750
gcactacagg tcctggccct gtcctccca gtcctcctgc tggtgccgt 800
ctcagcatag accgcccctc caggatgctg gggacagggc tcacacaccc 850
cattcttgct gcttcagccctatcacata gtcactgga aatgatgtt 900
aaagtaagaa ttgcaaaaa 918

<210> 50
<211> 251
<212> PRT
<213> Homo Sapien

<400> 50
Met Ala Met Gly Val Pro Arg Val Ile Leu Leu Cys Leu Phe Gly
1 5 10 15
Ala Ala Leu Cys Leu Thr Gly Ser Gln Ala Leu Gln Cys Tyr Ser
20 25 30

Phe	Glu	His	Thr	Tyr	Phe	Gly	Pro	Phe	Asp	Leu	Arg	Ala	Met	Lys
					35				40				45	
Leu	Pro	Ser	Ile	Ser	Cys	Pro	His	Glu	Cys	Phe	Glu	Ala	Ile	Leu
					50				55				60	
Ser	Leu	Asp	Thr	Gly	Tyr	Arg	Ala	Pro	Val	Thr	Leu	Val	Arg	Lys
					65				70				75	
Gly	Cys	Trp	Thr	Gly	Pro	Pro	Ala	Gly	Gln	Thr	Gln	Ser	Asn	Pro
					80				85				90	
Asp	Ala	Leu	Pro	Pro	Asp	Tyr	Ser	Val	Val	Arg	Gly	Cys	Thr	Thr
					95				100				105	
Asp	Lys	Cys	Asn	Ala	His	Leu	Met	Thr	His	Asp	Ala	Leu	Pro	Asn
					110				115				120	
Leu	Ser	Gln	Ala	Pro	Asp	Pro	Pro	Thr	Leu	Ser	Gly	Ala	Glu	Cys
					125				130				135	
Tyr	Ala	Cys	Ile	Gly	Val	His	Gln	Asp	Asp	Cys	Ala	Ile	Gly	Arg
					140				145				150	
Ser	Arg	Arg	Val	Gln	Cys	His	Gln	Asp	Gln	Thr	Ala	Cys	Phe	Gln
					155				160				165	
Gly	Ser	Gly	Arg	Met	Thr	Val	Gly	Asn	Phe	Ser	Val	Pro	Val	Tyr
					170				175				180	
Ile	Arg	Thr	Cys	His	Arg	Pro	Ser	Cys	Thr	Thr	Glu	Gly	Thr	Thr
					185				190				195	
Ser	Pro	Trp	Thr	Ala	Ile	Asp	Leu	Gln	Gly	Ser	Cys	Cys	Glu	Gly
					200				205				210	
Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala
					215				220				225	
Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu
					230				235				240	
Leu	Pro	Val	Leu	Leu	Leu	Val	Gly	Leu	Ser	Ala				
					245				250					

<210> 51
 <211> 3288
 <212> DNA
 <213> Homo Sapien

<400> 51
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 gattggaaaa gggaaaggac aaaaaagacc cctgggctac acggcgtagg 100
 tgcagggttt cctactgctg ttcttttatg ctgggagctg tggctgttaac 150
 caactaggaa ataacgtatg cagcagctat ggctgtcaga gagttgtgct 200

tcccaagaca aaggcaagtc ctgtttcttt ttctttttg gggagtgtcc 250
ttggcagggtt ctgggtttgg acgttattcg gtgactgagg aaacagagaa 300
aggatcctt gtggtaatc tggcaaagga tctggacta gcagaggggg 350
agctggctgc aaggggaacc agggtggtt ccgatgataa caaacaatac 400
ctgctcctgg attcacatac cgggaatttg ctcacaaatg agaaaactgga 450
ccgagagaag ctgtgtggcc ctaaagagcc ctgtatgctg tatttccaaa 500
tttaatgga tgatccctt cagatttacc gggctgagct gagagtcaagg 550
gatataaaatg atcacgcgcc agtatttcag gacaaagaaa cagtctaaa 600
aatatcagaa aatacagctg aaggacagc atttagacta gaaagagcac 650
agatccaga tggaggactt aacggtatcc aaaactacac gatcagcccc 700
aactctttt tccatattaa cattagtggc ggtgatgaag gcatgatata 750
tccagagcta gtgttgaca aagcactgga tcgggaggag cagggagagc 800
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acctctactg tacgcacatcg tgtcttggac gtcaatgaca atgccccaca 900
gtttgcccaag gctctgtatg agacccaggc tccagaaaac agccccattg 950
gttcccttat tgttaaggta tggcagaag atgttagactc tggagtcaac 1000
gcggaaagtat cctattcatt ttttgcattc tcagaaaata ttcgaacgac 1050
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attatgagtt agtaaattct tacaaaataa atatacaggc aatggacggt 1150
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tctggagaaa atggaaagat ggtttgctac attcaagaga atctgccatt 1350
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cgctggacag agagatcaga gccgagtaca acatcactat caccgtcact 1450
gacttgggga cacccaggct gaaaaccgag cacaacataa cggtcctgg 1500
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ggccaatatt ttcttatgtt aacttttgct gatgtataaa acagactatg 3200
ccttataatt gaaataaaat tataatctgc ctgaaaatga ataaaaataa 3250
aacatttga aatgtaaaaa aaaaaaaaaa aaaaaaaaa 3288

<210> 52
<211> 800
<212> PRT
<213> Homo Sapien

<400> 52
Met Ala Val Arg Glu Leu Cys Phe Pro Arg Gln Arg Gln Val Leu
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Phe Leu Phe Leu Phe Trp Gly Val Ser Leu Ala Gly Ser Gly Phe
20 25 30
Gly Arg Tyr Ser Val Thr Glu Glu Thr Glu Lys Gly Ser Phe Val
35 40 45
Val Asn Leu Ala Lys Asp Leu Gly Leu Ala Glu Gly Glu Leu Ala
50 55 60
Ala Arg Gly Thr Arg Val Val Ser Asp Asp Asn Lys Gln Tyr Leu
65 70 75
Leu Leu Asp Ser His Thr Gly Asn Leu Leu Thr Asn Glu Lys Leu
80 85 90
Asp Arg Glu Lys Leu Cys Gly Pro Lys Glu Pro Cys Met Leu Tyr
95 100 105
Phe Gln Ile Leu Met Asp Asp Pro Phe Gln Ile Tyr Arg Ala Glu
110 115 120
Leu Arg Val Arg Asp Ile Asn Asp His Ala Pro Val Phe Gln Asp
125 130 135
Lys Glu Thr Val Leu Lys Ile Ser Glu Asn Thr Ala Glu Gly Thr
140 145 150
Ala Phe Arg Leu Glu Arg Ala Gln Asp Pro Asp Gly Gly Leu Asn
155 160 165
Gly Ile Gln Asn Tyr Thr Ile Ser Pro Asn Ser Phe Phe His Ile
170 175 180
Asn Ile Ser Gly Gly Asp Glu Gly Met Ile Tyr Pro Glu Leu Val
185 190 195
Leu Asp Lys Ala Leu Asp Arg Glu Glu Gln Gly Glu Leu Ser Leu
200 205 210
Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Ser Arg Ser Gly Thr
215 220 225

Ser Thr Val Arg Ile Val Val Leu Asp Val Asn Asp Asn Ala Pro
 230 235 240
 Gln Phe Ala Gln Ala Leu Tyr Glu Thr Gln Ala Pro Glu Asn Ser
 245 250 255
 Pro Ile Gly Phe Leu Ile Val Lys Val Trp Ala Glu Asp Val Asp
 260 265 270
 Ser Gly Val Asn Ala Glu Val Ser Tyr Ser Phe Phe Asp Ala Ser
 275 280 285
 Glu Asn Ile Arg Thr Thr Phe Gln Ile Asn Pro Phe Ser Gly Glu
 290 295 300
 Ile Phe Leu Arg Glu Leu Leu Asp Tyr Glu Leu Val Asn Ser Tyr
 305 310 315
 Lys Ile Asn Ile Gln Ala Met Asp Gly Gly Gly Leu Ser Ala Arg
 320 325 330
 Cys Arg Val Leu Val Glu Val Leu Asp Thr Asn Asp Asn Pro Pro
 335 340 345
 Glu Leu Ile Val Ser Ser Phe Ser Asn Ser Val Ala Glu Asn Ser
 350 355 360
 Pro Glu Thr Pro Leu Ala Val Phe Lys Ile Asn Asp Arg Asp Ser
 365 370 375
 Gly Glu Asn Gly Lys Met Val Cys Tyr Ile Gln Glu Asn Leu Pro
 380 385 390
 Phe Leu Leu Lys Pro Ser Val Glu Asn Phe Tyr Ile Leu Ile Thr
 395 400 405
 Glu Gly Ala Leu Asp Arg Glu Ile Arg Ala Glu Tyr Asn Ile Thr
 410 415 420
 Ile Thr Val Thr Asp Leu Gly Thr Pro Arg Leu Lys Thr Glu His
 425 430 435
 Asn Ile Thr Val Leu Val Ser Asp Val Asn Asp Asn Ala Pro Ala
 440 445 450
 Phe Thr Gln Thr Ser Tyr Thr Leu Phe Val Arg Glu Asn Asn Ser
 455 460 465
 Pro Ala Leu His Ile Gly Ser Val Ser Ala Thr Asp Arg Asp Ser
 470 475 480
 Gly Thr Asn Ala Gln Val Thr Tyr Ser Leu Leu Pro Pro Gln Asp
 485 490 495
 Pro His Leu Pro Leu Ala Ser Leu Val Ser Ile Asn Ala Asp Asn
 500 505 510
 Gly His Leu Phe Ala Leu Arg Ser Leu Asp Tyr Glu Ala Leu Gln

515	520	525
Ala Phe Glu Phe Arg Val Gly Ala Thr Asp Arg Gly Ser Pro Ala		
530	535	540
Leu Ser Arg Glu Ala Leu Val Arg Val Leu Val Leu Asp Ala Asn		
545	550	555
Asp Asn Ser Pro Phe Val Leu Tyr Pro Leu Gln Asn Gly Ser Ala		
560	565	570
Pro Cys Thr Glu Leu Val Pro Arg Ala Ala Glu Pro Gly Tyr Leu		
575	580	585
Val Thr Lys Val Val Ala Val Asp Gly Asp Ser Gly Gln Asn Ala		
590	595	600
Trp Leu Ser Tyr Gln Leu Leu Lys Ala Thr Glu Pro Gly Leu Phe		
605	610	615
Gly Val Trp Ala His Asn Gly Glu Val Arg Thr Ala Arg Leu Leu		
620	625	630
Ser Glu Arg Asp Ala Ala Lys His Arg Leu Val Val Leu Val Lys		
635	640	645
Asp Asn Gly Glu Pro Pro Arg Ser Ala Thr Ala Thr Leu His Leu		
650	655	660
Leu Leu Val Asp Gly Phe Ser Gln Pro Tyr Leu Pro Leu Pro Glu		
665	670	675
Ala Ala Pro Ala Gln Ala Gln Ala Glu Ala Asp Leu Leu Thr Val		
680	685	690
Tyr Leu Val Val Ala Leu Ala Ser Val Ser Ser Leu Phe Leu Leu		
695	700	705
Ser Val Leu Leu Phe Val Ala Val Arg Leu Cys Arg Arg Ser Arg		
710	715	720
Ala Ala Ser Val Gly Arg Cys Ser Val Pro Glu Gly Pro Phe Pro		
725	730	735
Gly His Leu Val Asp Val Arg Gly Ala Glu Thr Leu Ser Gln Ser		
740	745	750
Tyr Gln Tyr Glu Val Cys Leu Thr Gly Gly Pro Gly Thr Ser Glu		
755	760	765
Phe Lys Phe Leu Lys Pro Val Ile Ser Asp Ile Gln Ala Gln Gly		
770	775	780
Pro Gly Arg Lys Gly Glu Glu Asn Ser Thr Phe Arg Asn Ser Phe		
785	790	795
Gly Phe Asn Ile Gln		
800		

<210> 53
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
ctggggagtg tccttggcag gttc 24

<210> 54
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 54
cagcatacag ggctcttag ggcacac 27

<210> 55
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 55
cggtgactga ggaaacagag aaaggatcct ttgtggtcaa tctggc 46

<210> 56
<211> 2242
<212> DNA
<213> Homo Sapien

<220>
<221> unsure
<222> 2181
<223> unknown base

<400> 56
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gagatattta atgtcaccct cttggggctt tcatggact ccctctgcca 150
cattttttgg aggttggaa agttgctaga ggcttcagaa ctccagccta 200
atggatccca aactcgggag aatggctgcg tccctgtgg ctgtgctgct 250
gctgctgctg gagcgcggca tggcttcctc accctccccg ccccccggcgc 300
tgttagagaa agtcttccag tacattgacc tccatcagga tgaatttg 350

cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400
gcctcgcttc agacaagagc tcttcagaat gatggccgtg gctgcggaca 450
cgctgcagcg cctgggggcc cgtgtggcct cggtggacat gggtcctcag 500
cagctgcccgg atggtcagag tcttccaata cctccgtca tcctggccga 550
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

<210> 57
<211> 507
<212> PRT
<213> Homo Sapien

<400> 57
Met Asp Pro Lys Leu Gly Arg Met Ala Ala Ser Leu Leu Ala Val
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Leu Leu Leu Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro
20 25 30
Pro Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His
35 40 45
Gln Asp Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu
50 55 60
Ser Asp Ser Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe
65 70 75
Arg Met Met Ala Val Ala Ala Asp Thr Leu Gln Arg Leu Gly Ala
80 85 90
Arg Val Ala Ser Val Asp Met Gly Pro Gln Gln Leu Pro Asp Gly
95 100 105
Gln Ser Leu Pro Ile Pro Pro Val Ile Leu Ala Glu Leu Gly Ser
110 115 120
Asp Pro Thr Lys Gly Thr Val Cys Phe Tyr Gly His Leu Asp Val
125 130 135
Gln Pro Ala Asp Arg Gly Asp Gly Trp Leu Thr Asp Pro Tyr Val
140 145 150
Leu Thr Glu Val Asp Gly Lys Leu Tyr Gly Arg Gly Ala Thr Asp
155 160 165
Asn Lys Gly Pro Val Leu Ala Trp Ile Asn Ala Val Ser Ala Phe

170	175	180
Arg Ala Leu Glu Gln Asp Leu Pro Val Asn Ile Lys Phe Ile Ile		
185	190	195
Glu Gly Met Glu Glu Ala Gly Ser Val Ala Leu Glu Glu Leu Val		
200	205	210
Glu Lys Glu Lys Asp Arg Phe Phe Ser Gly Val Asp Tyr Ile Val		
215	220	225
Ile Ser Asp Asn Leu Trp Ile Ser Gln Arg Lys Pro Ala Ile Thr		
230	235	240
Tyr Gly Thr Arg Gly Asn Ser Tyr Phe Met Val Glu Val Lys Cys		
245	250	255
Arg Asp Gln Asp Phe His Ser Gly Thr Phe Gly Gly Ile Leu His		
260	265	270
Glu Pro Met Ala Asp Leu Val Ala Leu Leu Gly Ser Leu Val Asp		
275	280	285
Ser Ser Gly His Ile Leu Val Pro Gly Ile Tyr Asp Glu Val Val		
290	295	300
Pro Leu Thr Glu Glu Glu Ile Asn Thr Tyr Lys Ala Ile His Leu		
305	310	315
Asp Leu Glu Glu Tyr Arg Asn Ser Ser Arg Val Glu Lys Phe Leu		
320	325	330
Phe Asp Thr Lys Glu Glu Ile Leu Met His Leu Trp Arg Tyr Pro		
335	340	345
Ser Leu Ser Ile His Gly Ile Glu Gly Ala Phe Asp Glu Pro Gly		
350	355	360
Thr Lys Thr Val Ile Pro Gly Arg Val Ile Gly Lys Phe Ser Ile		
365	370	375
Arg Leu Val Pro His Met Asn Val Ser Ala Val Glu Lys Gln Val		
380	385	390
Thr Arg His Leu Glu Asp Val Phe Ser Lys Arg Asn Ser Ser Asn		
395	400	405
Lys Met Val Val Ser Met Thr Leu Gly Leu His Pro Trp Ile Ala		
410	415	420
Asn Ile Asp Asp Thr Gln Tyr Leu Ala Ala Lys Arg Ala Ile Arg		
425	430	435
Thr Val Phe Gly Thr Glu Pro Asp Met Ile Arg Asp Gly Ser Thr		
440	445	450
Ile Pro Ile Ala Lys Met Phe Gln Glu Ile Val His Lys Ser Val		
455	460	465

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln
470 475 480

Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu
485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His
500 505

<210> 58

<211> 1470

<212> DNA

<213> Homo Sapien

<400> 58

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ctttgtcatg ggacctgtgc gggtggaaat attgcttttc ctttttttgg 150
ccgtgcacga ggcttgggct gggatgttga aggaggagga ccatgacaca 200
gaacgcttgc ccagcaaatg cgaagtgtgt aagctgctga gcacagagct 250
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cagcaaaccg tgaaggagaa tggacactg ggtcatggcc tggagttgct 1350
gataatttag gtgggataga tacttggtct acttaagctc aatgtAACCC 1400
agagcccacc atatagttt ataggtgctc aactttctat atcgctattt 1450
aacttttttc ttttttcta 1470

<210> 59
<211> 248
<212> PRT
<213> Homo Sapien

<400> 59
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20 25 30
Thr Glu Arg Leu Pro Ser Lys Cys Glu Val Cys Lys Leu Leu Ser
35 40 45
Thr Glu Leu Gln Ala Glu Leu Ser Arg Thr Gly Arg Ser Arg Glu
50 55 60
Val Leu Glu Leu Gly Gln Val Leu Asp Thr Gly Lys Arg Lys Arg
65 70 75
His Val Pro Tyr Ser Val Ser Glu Thr Arg Leu Glu Glu Ala Leu
80 85 90
Glu Asn Leu Cys Glu Arg Ile Leu Asp Tyr Ser Val His Ala Glu
95 100 105
Arg Lys Gly Ser Leu Arg Tyr Ala Lys Gly Gln Ser Gln Thr Met
110 115 120
Ala Thr Leu Lys Gly Leu Val Gln Lys Gly Val Lys Val Asp Leu
125 130 135
Gly Ile Pro Leu Glu Leu Trp Asp Glu Pro Ser Val Glu Val Thr
140 145 150
Tyr Leu Lys Lys Gln Cys Glu Thr Met Leu Glu Glu Phe Glu Asp
155 160 165
Ile Val Gly Asp Trp Tyr Phe His His Gln Glu Gln Pro Leu Gln
170 175 180

Asn Phe Leu Cys Glu Gly His Val Leu Pro Ala Ala Glu Thr Ala
185 190 195
Cys Leu Gln Glu Thr Trp Thr Gly Lys Glu Ile Thr Asp Gly Glu
200 205 210
Glu Lys Thr Glu Gly Glu Glu Gln Glu Glu Glu Glu Glu Glu
215 220 225
Glu Glu Glu Gly Gly Asp Lys Met Thr Lys Thr Gly Ser His
230 235 240
Pro Lys Leu Asp Arg Glu Asp Leu
245

<210> 60
<211> 890
<212> DNA
<213> Homo Sapien

<400> 60
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atgaggctgg tcacagcagc actgttactg ggtctcatga tggtggtcac 150
tggagacgag gatgagaaca gcccggtgtgc ccatgaggcc ctcttggacg 200
aggacaccct ctttgcag ggccttgaag ttttctaccc agagttgggg 250
aacattggct gcaagggtgt tcctgattgt aacaactaca gacagaagat 300
cacctcctgg atggagccga tagtcaagtt cccggggcc gtggacggcg 350
caacctatat cctgggtatg gtggatccag atgcccctag cagagcagaa 400
cccaagacaga gattctggag acattggctg gtaacagata tcaagggcgc 450
cgacctgaag aaaggaaaga ttcagggcca ggagttatca gcctaccagg 500
ctccctcccc accggcacac agtggcttcc atcgctacca gttcttgtc 550
tatcttcagg aaggaaaagt catctcttc cttcccaagg aaaacaaaac 600
tcgaggctct tggaaaatgg acagattct gaaccgcttc cacctggcg 650
aacctgaagc aagcacccag ttcatgaccc agaactacca ggactcacca 700
accctccagg ctcccagagg aagggccagc gagcccaagc acaaaaccag 750
gcagagatag ctgcctgcta gatagccggc tttgccatcc gggcatgtgg 800
ccacactgct caccaccgac gatgtggta tggaaaccccc tctggataca 850
gaaccccttc tttccaaat taaaaaaaaaa aatcatcaaa 890

<210> 61

<211> 223
<212> PRT
<213> Homo Sapien

<400> 61
Met Gly Trp Thr Met Arg Leu Val Thr Ala Ala Leu Leu Leu Gly
1 5 10 15
Leu Met Met Val Val Thr Gly Asp Glu Asp Glu Asn Ser Pro Cys
20 25 30
Ala His Glu Ala Leu Leu Asp Glu Asp Thr Leu Phe Cys Gln Gly
35 40 45
Leu Glu Val Phe Tyr Pro Glu Leu Gly Asn Ile Gly Cys Lys Val
50 55 60
Val Pro Asp Cys Asn Asn Tyr Arg Gln Lys Ile Thr Ser Trp Met
65 70 75
Glu Pro Ile Val Lys Phe Pro Gly Ala Val Asp Gly Ala Thr Tyr
80 85 90
Ile Leu Val Met Val Asp Pro Asp Ala Pro Ser Arg Ala Glu Pro
95 100 105
Arg Gln Arg Phe Trp Arg His Trp Leu Val Thr Asp Ile Lys Gly
110 115 120
Ala Asp Leu Lys Lys Gly Lys Ile Gln Gly Gln Glu Leu Ser Ala
125 130 135
Tyr Gln Ala Pro Ser Pro Pro Ala His Ser Gly Phe His Arg Tyr
140 145 150
Gln Phe Phe Val Tyr Leu Gln Glu Gly Lys Val Ile Ser Leu Leu
155 160 165
Pro Lys Glu Asn Lys Thr Arg Gly Ser Trp Lys Met Asp Arg Phe
170 175 180
Leu Asn Arg Phe His Leu Gly Glu Pro Glu Ala Ser Thr Gln Phe
185 190 195
Met Thr Gln Asn Tyr Gln Asp Ser Pro Thr Leu Gln Ala Pro Arg
200 205 210
Gly Arg Ala Ser Glu Pro Lys His Lys Thr Arg Gln Arg
215 220

<210> 62
<211> 1321
<212> DNA
<213> Homo Sapien

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tcactgtgc tgttatcaca tgcaagtatc cagaggctct tgagcaaggc 200
agaggggatc ccatttattt gggaatccag aatccagaaa tgtgtttgta 250
tttgagaag gttggagaac agcccacatt gcagctaaaa gaggcagaaga 300
tcatggatct gtatggccaa cccgagcccg tgaaaccctt cctttctac 350
cgtgccaaga ctggtaggac ctccaccctt gagtcgtgg cttcccgga 400
ctggttcatt gcctcctcca agagagacca gcccatttcatt ctgacttcag 450
aacttggaa gtcatacaac actgccttg aattaaatat aaatgactga 500
actcagccta gaggtggcag ctggcttt gtcttaagt ttctggttcc 550
caatgtgttt tcgtctacat tttcttagtg tcatttcac gctggtgctg 600
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cttctagggg tgggtatgaa gatgcttcag agctcatgcg cgttacccac 850
gatggcatga ctgcacaga gctgatctct gttctgttt tgctttattc 900
cctctggga tgatatcatc cagtcttat atgttgc当地 tatacctcat 950
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tggcatgact agcacagagc tgatctctgt ttctgtttt ctttattccc 1100
tcttggatg atatcatcca gtcttat gttgccaata tacctcattt 1150
tgtgtatag aaccttctta gcattaagac cttgtaaaca aaaataattc 1200
tttgtttaag ttaaatcatt tttgtcctaa ttgtatgtg taatcttaaa 1250
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aaataaagaa agagtaaact g 1321

<210> 63
<211> 134 .
<212> PRT

<213> Homo Sapien

<400> 63

Met Arg Gly Thr Pro Gly Asp Ala Asp Gly Gly Gly Arg Ala Val
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Tyr Gln Ser Ile Thr Val Ala Val Ile Thr Cys Lys Tyr Pro Glu
20 25 30

Ala Leu Glu Gln Gly Arg Gly Asp Pro Ile Tyr Leu Gly Ile Gln
35 40 45

Asn Pro Glu Met Cys Leu Tyr Cys Glu Lys Val Gly Glu Gln Pro
50 55 60

Thr Leu Gln Leu Lys Glu Gln Lys Ile Met Asp Leu Tyr Gly Gln
65 70 75

Pro Glu Pro Val Lys Pro Phe Leu Phe Tyr Arg Ala Lys Thr Gly
80 85 90

Arg Thr Ser Thr Leu Glu Ser Val Ala Phe Pro Asp Trp Phe Ile
95 100 105

Ala Ser Ser Lys Arg Asp Gln Pro Ile Ile Leu Thr Ser Glu Leu
110 115 120

Gly Lys Ser Tyr Asn Thr Ala Phe Glu Leu Asn Ile Asn Asp
125 130

<210> 64
<211> 999
<212> DNA
<213> Homo Sapien

<400> 64
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gacctgctac tcccgcatgc gggccctgag ccaggagatc acccgcgact 150
tcaacacctcct gcaggtctcg gagccctcgg agccatgtgt gagataacctg 200
cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgcg 250
ggactttgtg gcctcgcccc cgtgttggaa agtggcccaag gtagattcct 300
tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350
agagatttgg tattcctgtt ggatgactgc aatgccttgg aatacccaat 400
cccagtgact acggtcctgc cagatcgtca gcgctaaagg aactgagacc 450
agagaaagaa cccaagagaa ctaaagttat gtcagctacc cagacttaat 500
gggccagagc catgaccctc acaggtcttg tgtagttgt atctgaaact 550
gttatgtatc tctctacatt ctggaaaaca gggctggat tcctacccag 600
gaacacctt tgagcataga gttagcaacc atgctctca ttcccttgac 650

tcatgtcttg ccaggatgg tagatacaca gcatgttcat ttggtaacta 700
aaaagaagaa aaggactaac aagcttcaact tttatgaaca actatttga 750
gaacatgcac aatagtatgt ttttattact ggttaatgg agtaatggta 800
cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
tatgcctttt tctaacadag actttttca ctgtcttca tttaaaaaga 900
aattaatgct cttaagatata tattttacg tagtgctgac aggacccact 950
ctttcattga aaggtgatga aaatcaaata aagaatctct tcacatgga 999

<210> 65
<211> 136
<212> PRT
<213> Homo Sapien

<400> 65
Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Ala
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Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
20 25 30
Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
35 40 45
Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
50 55 60
Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
65 70 75
Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
80 85 90
Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
95 100 105
Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
110 115 120
Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
125 130 135
Arg

<210> 66
<211> 1893
<212> DNA
<213> Homo Sapien

<400> 66
gtctccgcgt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

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ccgtcgagtgc tagagatcc tgcagccgccc cagtcggc ccctctcccg 150
ccccacaccc accctcctgg ctcttcctgt ttttactcct cctttcatt 200
cataacaaaa gctacagctc caggagccca gcgcggcgt gtgacccaag 250
ccgagcgtgg aagaatgggg ttccctcgga ccggcacttg gattctggtg 300
ttagtgcgtcc cgattcaagc tttcccaaa cctggaggaa gccaagacaa 350
atctctacat aatagagaat taagtgcaga aagaccttg aatgaacaga 400
ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450
aagccaggc agagcaacta ttctttgtt gataacttga acctgctaaa 500
ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600
aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
taaatttcaa gatgatccag atggcttca tcaactagac gggactcctt 700
taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750
aatgacagag ccgtgttga caagattgtt tctaaactac ttaatctcg 800
ccttattcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
tttacaaaaa attaatctca aaggaagcca acaattatga ggaggatccc 900
aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
agtgactcca atggcagcaa ttcaagatgg tcttgcttcaag ggagaaaacg 1000
atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050
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tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150
aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200
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atgctactga caatataagc aagctttcc cagcaccatc agagaagagt 1350
catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450
gaaagacaga tgaacccaaa ggaaaaacag aagccttattt ggaagccatc 1500

agaaaaaaata ttgaatggtt gaagaaacat gacaaaaagg gaaataaaga 1550
agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600
cttatgtgga gaaaggcatc cttgacaagg aagaagccga gcccatcaag 1650
cgcatttata gcagccctgta aaaatggcaa aagatccagg agtcttcaa 1700
ctgtttcaga aaacataata tagcttaaaa cacttctaat tctgtgatta 1750
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aaagtaaagt tgtatgtaag ctgaaaaaaaaaaaaaaa aaa 1893

<210> 67
<211> 468
<212> PRT
<213> Homo Sapien

<400> 67

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					20				25					30
Leu	His	Asn	Arg	Glu	Leu	Ser	Ala	Glu	Arg	Pro	Leu	Asn	Glu	Gln
					35				40					45
Ile	Ala	Glu	Ala	Glu	Glu	Asp	Lys	Ile	Lys	Lys	Thr	Tyr	Pro	Pro
					50				55					60
Glu	Asn	Lys	Pro	Gly	Gln	Ser	Asn	Tyr	Ser	Phe	Val	Asp	Asn	Leu
					65				70					75
Asn	Leu	Leu	Lys	Ala	Ile	Thr	Glu	Lys	Glu	Lys	Ile	Glu	Lys	Glu
					80				85					90
Arg	Gln	Ser	Ile	Arg	Ser	Ser	Pro	Leu	Asp	Asn	Lys	Leu	Asn	Val
					95				100					105
Glu	Asp	Val	Asp	Ser	Thr	Lys	Asn	Arg	Lys	Leu	Ile	Asp	Asp	Tyr
					110				115					120
Asp	Ser	Thr	Lys	Ser	Gly	Leu	Asp	His	Lys	Phe	Gln	Asp	Asp	Pro
					125				130					135
Asp	Gly	Leu	His	Gln	Leu	Asp	Gly	Thr	Pro	Leu	Thr	Ala	Glu	Asp
					140				145					150
Ile	Val	His	Lys	Ile	Ala	Ala	Arg	Ile	Tyr	Glu	Glu	Asn	Asp	Arg
					155				160					165
Ala	Val	Phe	Asp	Lys	Ile	Val	Ser	Lys	Leu	Leu	Asn	Leu	Gly	Leu
					170				175					180

Ile	Thr	Glu	Ser	Gln	Ala	His	Thr	Leu	Glu	Asp	Glu	Val	Ala	Glu
185									190				195	
Val	Leu	Gln	Lys	Leu	Ile	Ser	Lys	Glu	Ala	Asn	Asn	Tyr	Glu	Glu
200								205					210	
Asp	Pro	Asn	Lys	Pro	Thr	Ser	Trp	Thr	Glu	Asn	Gln	Ala	Gly	Lys
215								220					225	
Ile	Pro	Glu	Lys	Val	Thr	Pro	Met	Ala	Ala	Ile	Gln	Asp	Gly	Leu
230								235					240	
Ala	Lys	Gly	Glu	Asn	Asp	Glu	Thr	Val	Ser	Asn	Thr	Leu	Thr	Leu
245								250					255	
Thr	Asn	Gly	Leu	Glu	Arg	Arg	Thr	Lys	Thr	Tyr	Ser	Glu	Asp	Asn
260								265					270	
Phe	Glu	Glu	Leu	Gln	Tyr	Phe	Pro	Asn	Phe	Tyr	Ala	Leu	Leu	Lys
275								280					285	
Ser	Ile	Asp	Ser	Glu	Lys	Glu	Ala	Lys	Glu	Lys	Glu	Thr	Leu	Ile
290								295					300	
Thr	Ile	Met	Lys	Thr	Leu	Ile	Asp	Phe	Val	Lys	Met	Met	Val	Lys
305								310					315	
Tyr	Gly	Thr	Ile	Ser	Pro	Glu	Glu	Gly	Val	Ser	Tyr	Leu	Glu	Asn
320								325					330	
Leu	Asp	Glu	Met	Ile	Ala	Leu	Gln	Thr	Lys	Asn	Lys	Leu	Glu	Lys
335								340					345	
Asn	Ala	Thr	Asp	Asn	Ile	Ser	Lys	Leu	Phe	Pro	Ala	Pro	Ser	Glu
350								355					360	
Lys	Ser	His	Glu	Glu	Thr	Asp	Ser	Thr	Lys	Glu	Glu	Ala	Ala	Lys
365								370					375	
Met	Glu	Lys	Glu	Tyr	Gly	Ser	Leu	Lys	Asp	Ser	Thr	Lys	Asp	Asp
380								385					390	
Asn	Ser	Asn	Pro	Gly	Gly	Lys	Thr	Asp	Glu	Pro	Lys	Gly	Lys	Thr
395								400					405	
Glu	Ala	Tyr	Leu	Glu	Ala	Ile	Arg	Lys	Asn	Ile	Glu	Trp	Leu	Lys
410								415					420	
Lys	His	Asp	Lys	Lys	Gly	Asn	Lys	Glu	Asp	Tyr	Asp	Leu	Ser	Lys
425								430					435	
Met	Arg	Asp	Phe	Ile	Asn	Lys	Gln	Ala	Asp	Ala	Tyr	Val	Glu	Lys
440								445					450	
Gly	Ile	Leu	Asp	Lys	Glu	Glu	Ala	Glu	Ala	Ile	Lys	Arg	Ile	Tyr
455								460					465	
Ser	Ser	Leu												

<210> 68
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 68
cgtcacagga acttcagcac cc 22

<210> 69
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 69
gtcttggctt cctccaggtt tgg 23

<210> 70
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 70
ggacagcgct cccctctacc tggagacttg actccgc 38

<210> 71
<211> 2379
<212> DNA
<213> Homo Sapien

<400> 71
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aaatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200
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cagctccgca gcctggcaca caacctctcg gtggggcca ccaatgacgt 700
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ccacatacccaaaactgacc taagaacact ttaaaaagca acatgtaaat 2150
gattggaaat taatatactgt cagaatataat ttttcccttg ttgagatctt 2200
cttttgcataat gtttttcattt ttactgccta gggcggtgct gggcacacag 2250
caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2379

<210> 72
<211> 322
<212> PRT
<213> Homo Sapien

<400> 72
Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu
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Leu Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro
20 25 30
Gln Ile Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn
35 40 45
Glu Arg His Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr
50 55 60
Pro Arg Leu Ala Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser
65 70 75
Thr Ser Arg Leu Leu Ser Val Gly Gly Glu Ala Phe Ser Gly Gly
80 85 90
Thr Ser Thr Phe Thr Val Thr Ala His Arg Ala Gln His Glu Leu
95 100 105
Asn Cys Ser Leu Gln Asp Pro Arg Ser Gly Arg Ser Ala Asn Ala
110 115 120
Ser Val Ile Leu Asn Val Gln Phe Lys Pro Glu Ile Ala Gln Val
125 130 135
Gly Ala Lys Tyr Gln Glu Ala Gln Gly Pro Gly Leu Leu Val Val
140 145 150
Leu Phe Ala Leu Val Arg Ala Asn Pro Pro Ala Asn Val Thr Trp
155 160 165

Ile Asp Gln Asp Gly Pro Val Thr Val Asn Thr Ser Asp Phe Leu
 170 175 180
 Val Leu Asp Ala Gln Asn Tyr Pro Trp Leu Thr Asn His Thr Val
 185 190 195
 Gln Leu Gln Leu Arg Ser Leu Ala His Asn Leu Ser Val Val Ala
 200 205 210
 Thr Asn Asp Val Gly Val Thr Ser Ala Ser Leu Pro Ala Pro Gly
 215 220 225
 Pro Ser Arg His Pro Ser Leu Ile Ser Ser Asp Ser Asn Asn Leu
 230 235 240
 Lys Leu Asn Asn Val Arg Leu Pro Arg Glu Asn Met Ser Leu Pro
 245 250 255
 Ser Asn Leu Gln Leu Asn Asp Leu Thr Pro Asp Ser Arg Ala Val
 260 265 270
 Lys Pro Ala Asp Arg Gln Met Ala Gln Asn Asn Ser Arg Pro Glu
 275 280 285
 Leu Leu Asp Pro Glu Pro Gly Gly Leu Leu Thr Ser Gln Gly Phe
 290 295 300
 Ile Arg Leu Pro Val Leu Gly Tyr Ile Tyr Arg Val Ser Ser Val
 305 310 315
 Ser Ser Asp Glu Ile Trp Leu
 320

<210> 73

<211> 843

<212> DNA

<213> Homo Sapien

<400> 73

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tgctgctggc gctgttagtg ccggccggtg gtgcccaa gaccggtgcg 150

gagctcgtga cctgcgggtc ggtgctgaag ctgctcaata cgcaccaccc 200

cgtgcggctg cactcgcacg acatcaaata cggatccggc agcggccagc 250

aatcggtgac cggcgttagag gcgtcggacg acgccaatag ctactggcgg 300

atccgcggcg gctcggaggg cgggtgcccc cgccggtccc cggtgcgctg 350

cgggcaggcg gtgaggctca cgcacgtgtct tacggcaag aacctgcaca 400

cgcaccactt cccgtcgccg ctgtccaaca accaggaggt gagtcgcctt 450

gggaaagacg gcgaggggcga cgacctggac ctatggacag tgcgctgctc 500

tggacagcac tgggagcgtg aggctgctgt gcgcctccag catgtggca 550
cctctgtgtt cctgtcagtc acgggtgagc agtatggaag ccccatccgt 600
ggcagcatg aggtccacgg catgcccagt gccaacacgc acaatacgtg 650
gaaggccatg gaaggcatct tcatcaagcc tagtgtggag ccctctgcag 700
gtcacatgtg actctgagtg tgtggatgga tgggtggatg gaggggtggca 750
ggtggggcgt ctgcagggcc actcttggca gagactttgg gttttaggg 800
gtcctcaagt gcctttgtga ttaagaatg ttggctatg aaa 843

<210> 74
<211> 221
<212> PRT
<213> Homo Sapien

<400> 74
Met Trp Ser Ala Gly Arg Gly Gly Ala Ala Trp Pro Val Leu Leu
1 5 10 15
Gly Leu Leu Leu Ala Leu Leu Val Pro Gly Gly Gly Ala Ala Lys
20 25 30
Thr Gly Ala Glu Leu Val Thr Cys Gly Ser Val Leu Lys Leu Leu
35 40 45
Asn Thr His His Arg Val Arg Leu His Ser His Asp Ile Lys Tyr
50 55 60
Gly Ser Gly Ser Gly Gln Gln Ser Val Thr Gly Val Glu Ala Ser
65 70 75
Asp Asp Ala Asn Ser Tyr Trp Arg Ile Arg Gly Ser Glu Gly
80 85 90
Gly Cys Pro Arg Gly Ser Pro Val Arg Cys Gly Gln Ala Val Arg
95 100 105
Leu Thr His Val Leu Thr Gly Lys Asn Leu His Thr His His Phe
110 115 120
Pro Ser Pro Leu Ser Asn Asn Gln Glu Val Ser Ala Phe Gly Glu
125 130 135
Asp Gly Glu Gly Asp Asp Leu Asp Leu Trp Thr Val Arg Cys Ser
140 145 150
Gly Gln His Trp Glu Arg Glu Ala Ala Val Arg Phe Gln His Val
155 160 165
Gly Thr Ser Val Phe Leu Ser Val Thr Gly Glu Gln Tyr Gly Ser
170 175 180
Pro Ile Arg Gly Gln His Glu Val His Gly Met Pro Ser Ala Asn
185 190 195

Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile Lys Pro
200 205 210

Ser Val Glu Pro Ser Ala Gly His Asp Glu Leu
215 220

<210> 75

<211> 1049

<212> DNA

<213> Homo Sapien

<400> 75

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ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150
ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200
tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250
gctttggaa ttccaaagta ctcagtggag agaggtgttt caggagccgt 300
agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt 350
gccctgatgg acttgtctga aagcagcaac tggggatgct atggaaacat 400
ccaaaggctg gacaccctg gacatcttgc tgggatttggaa agacgtcact 450
gcctgaacta ctgtggagtt cgtgcttctg aaaggctggc taaaatagac 500
atgccatacc tcctgaaata tcaacccatg atgcaaacca ttggccaaaa 550
gtactgcattg gatcctgccc tgatcgctgg tgtcttgcc aggaagtctc 600
ccggtgacaa aattctggtc aacatgggcg ataggactag catggtgca 650
gaccctggct ctcaagctcc cacatcctgg attagtgagt ctcaggtttc 700
ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750
ttccaacctg gaccctgac cagttacctga gaggtggact ctgtgcctac 800
agtgggggtg ctggctatgt ccgaaggcagc caggacctga gctgtgactt 850
ctgcaatgat gtccttgcac gagccaagta cctcaagaga catggcttct 900
aacatctcag atgaaaccca agaccatgat cacatatgca gcctcaaatg 950
ttacacagat aaaactagcc aaggccaccc ttaactggga atctgagttt 1000
gacctaataag tcattaaaat aacatgaatc ccattaaaaa aaaaaaaaaa 1049

<210> 76

<211> 194

<212> PRT

<213> Homo Sapien

<400> 76

Met Ser Ala Leu Trp Leu Leu Leu Gly Leu Leu Ala Leu Met Asp
1 5 10 15

Leu Ser Glu Ser Ser Asn Trp Gly Cys Tyr Gly Asn Ile Gln Ser
20 25 30

Leu Asp Thr Pro Gly Ala Ser Cys Gly Ile Gly Arg Arg His Gly
35 40 45

Leu Asn Tyr Cys Gly Val Arg Ala Ser Glu Arg Leu Ala Glu Ile
50 55 60

Asp Met Pro Tyr Leu Leu Lys Tyr Gln Pro Met Met Gln Thr Ile
65 70 75

Gly Gln Lys Tyr Cys Met Asp Pro Ala Val Ile Ala Gly Val Leu
80 85 90

Ser Arg Lys Ser Pro Gly Asp Lys Ile Leu Val Asn Met Gly Asp
95 100 105

Arg Thr Ser Met Val Gln Asp Pro Gly Ser Gln Ala Pro Thr Ser
110 115 120

Trp Ile Ser Glu Ser Gln Val Ser Gln Thr Thr Glu Val Leu Thr
125 130 135

Thr Arg Ile Lys Glu Ile Gln Arg Arg Phe Pro Thr Trp Thr Pro
140 145 150

Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala Tyr Ser Gly Gly Ala
155 160 165

Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn
170 175 180

Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His Gly Phe
185 190

<210> 77

<211> 899

<212> DNA

<213> Homo Sapien

<400> 77

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tcgccatgaa agcccttatg ctgctcaccc tgtctgttct gctctgctgg 100

gtctcagctg acattcgctg tcactcctgc tacaagggtcc ctgtgctggg 150

ctgtgtggac cggcagtcct gccgcctgga gccaggacag caatgcctga 200

caacacatgc ataccttggta aagatgtggg ttttctccaa tctgcgttgt 250

ggcacaccag aagagccctg tcaggaggcc ttcaacccaaa ccaaccgcaa 300

gctgggtctg acatataaca ccacctgctg caacaaggac aactgcaaca 350
gcgcaggacc ccggcccaact ccagccctgg gccttgtctt cttacacct 400
ttggctggcc ttggcctctg gctgctgcac tgagactcat tccattggct 450
gcccctcctc ccacctgcct tggcctgagc ctctctccct gtgtctctgt 500
atccccctggc tttacagaat cgtctctccc tagctccat ttctttaatt 550
aaacactgtt ccgagtggtc tcctcatcca tccttccac ctcacaccct 600
tcactctcct ttttctgggt cccttccac ttccttccag gacctccatt 650
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ccagtgaagg ctcccacaag gacctgatga cctcaactgta cagagctgac 800
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tccattttga gtaataaatg tctgagtctg gaaaaaaaaaaaaaaa 899

<210> 78
<211> 125
<212> PRT
<213> Homo Sapien

<400> 78

Met	Lys	Ala	Leu	Met	Leu	Leu	Thr	Leu	Ser	Val	Leu	Leu	Cys	Trp
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Val	Ser	Ala	Asp	Ile	Arg	Cys	His	Ser	Cys	Tyr	Lys	Val	Pro	Val
				20					25					30
Leu	Gly	Cys	Val	Asp	Arg	Gln	Ser	Cys	Arg	Leu	Glu	Pro	Gly	Gln
						35			40					45
Gln	Cys	Leu	Thr	Thr	His	Ala	Tyr	Leu	Gly	Lys	Met	Trp	Val	Phe
					50				55					60
Ser	Asn	Leu	Arg	Cys	Gly	Thr	Pro	Glu	Glu	Pro	Cys	Gln	Glu	Ala
						65			70					75
Phe	Asn	Gln	Thr	Asn	Arg	Lys	Leu	Gly	Leu	Thr	Tyr	Asn	Thr	Thr
					80				85					90
Cys	Cys	Asn	Lys	Asp	Asn	Cys	Asn	Ser	Ala	Gly	Pro	Arg	Pro	Thr
						95			100					105
Pro	Ala	Leu	Gly	Leu	Val	Phe	Leu	Thr	Ser	Leu	Ala	Gly	Leu	Gly
					110				115					120
Leu	Trp	Leu	Leu	His										
				125										

<210> 79

<211> 1977
<212> DNA
<213> Homo Sapien

<400> 79
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tagctgcgca gcgtcgcgcg cgctaccgca cccaggttcg gcccgtagc 150
gtctggcagc ccggcgccat cttcatcgag cgccatggcc gcagcctgcg 200
ggccgggagc ggccgggtac tgcttgctcc tcggcttgca tttgtttctg 250
ctgaccgcgg gcccgcctt gggctggaac gaccctgaca gaatgttgc 300
gcgggatgtaa aagctctta ccctccacta tgaccgctat accacctccc 350
gcaggctgga tcccatccca cagttgaaat gtgttgagg cacagctgg 400
tgtgattctt atacccaaa agtcatacag tgtcagaaca aaggctgg 450
tgggtatgtat gtacagtggg aatgtaaagac ggacttagat attgcataca 500
aatttggaaa aactgtggtg agctgtgaag gctatgagtc ctctgaagac 550
cagttatgtac taagaggttc ttgtggcttg gagtataatt tagattatac 600
agaacttggc ctgcagaaac tgaaggagtc tggaaagcag cacggctttg 650
cctctttctc tgattattat tataagtggt cctcggcgga ttccctgtAAC 700
atgagttggat tgattaccat cgtggtactc cttggatcg cttttgttagt 750
ctataagctg ttccctgagtg acgggcagta ttctcctcca ccgtactctg 800
atgatcctcc atttccac cgttaccaga gattcacca ctcagcagga 850
cctcctcccc caggctttaa gtctgagttc acaggaccac agaatactgg 900
ccatggtgca acttctggtt ttggcagtgc ttttacagga caacaaggat 950
atgaaaattc aggaccaggg ttctggacag gcttggaaac tgggtggata 1000
ctaggatatt tgggtggcag caatagagcg gcaacaccct tctcagactc 1050
gtggtactac ccgtcctatc ctccctccta ccctggcacg tggaaatagg 1100
cttactcacc cttcatggc ggctcgggca gctattcggt atgttcaaac 1150
tcagacacga aaaccagaac tgcacatcgagttatggtggta ccaggagacg 1200
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tcatcacttt ctcttagaa aaaaagtact acctgttaac aattggaaa 1300
aggggatatt caaaagttct gtgggtttat gtccagtgtaa gctttttgtAA 1350

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gtatgtcagt gtaacatgca gatgtatatt gcagttttg aaagtgatca 1450
ttactgtgga atgctaaaaa tacattaatt tctaaaacct gtgatccct 1500
aagaagcatt aagaatgaag gtgttgtact aatagaaact aagtacagaa 1550
aatttcagtt ttaggtggtt gtagctgatg agttattacc tcataagagac 1600
tataatattc tatttggat tatattattt gatgttgct gttcttcaa 1650
catttaaatac aagcttgga ctaattatgc taatttgc gttctgatca 1700
ctttgagct ctgaagctt gaatcattca gtggggaga tggccttctg 1750
gtaactgaat attaccttct gtagggaaag gtggaaaata agcatctaga 1800
agttgttgtt gaatgactct gtgctggcaa aaatgcttga aacctctata 1850
tttcttcgt tcataagagg taaaggtcaa attttcaac aaaagtcttt 1900
taataacaaa agcatgcagt tctctgtgaa atctcaaata ttgttgtaat 1950
agtctgttcc aatctaaaaa agaatca 1977

<210> 80
<211> 339
<212> PRT
<213> Homo Sapien

<400> 80
Met Ala Ala Ala Cys Gly Pro Gly Ala Ala Gly Tyr Cys Leu Leu
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Leu Gly Leu His Leu Phe Leu Leu Thr Ala Gly Pro Ala Leu Gly
20 25 30
Trp Asn Asp Pro Asp Arg Met Leu Leu Arg Asp Val Lys Ala Leu
35 40 45
Thr Leu His Tyr Asp Arg Tyr Thr Thr Ser Arg Arg Leu Asp Pro
50 55 60
Ile Pro Gln Leu Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser
65 70 75
Tyr Thr Pro Lys Val Ile Gln Cys Gln Asn Lys Gly Trp Asp Gly
80 85 90
Tyr Asp Val Gln Trp Glu Cys Lys Thr Asp Leu Asp Ile Ala Tyr
95 100 105
Lys Phe Gly Lys Thr Val Val Ser Cys Glu Gly Tyr Glu Ser Ser
110 115 120
Glu Asp Gln Tyr Val Leu Arg Gly Ser Cys Gly Leu Glu Tyr Asn
125 130 135

Leu Asp Tyr Thr Glu Leu Gly Leu Gln Lys Leu Lys Glu Ser Gly
140 145 150

Lys Gln His Gly Phe Ala Ser Phe Ser Asp Tyr Tyr Tyr Lys Trp
155 160 165

Ser Ser Ala Asp Ser Cys Asn Met Ser Gly Leu Ile Thr Ile Val
170 175 180

Val Leu Leu Gly Ile Ala Phe Val Val Tyr Lys Leu Phe Leu Ser
185 190 195

Asp Gly Gln Tyr Ser Pro Pro Pro Tyr Ser Glu Tyr Pro Pro Phe
200 205 210

Ser His Arg Tyr Gln Arg Phe Thr Asn Ser Ala Gly Pro Pro Pro
215 220 225

Pro Gly Phe Lys Ser Glu Phe Thr Gly Pro Gln Asn Thr Gly His
230 235 240

Gly Ala Thr Ser Gly Phe Gly Ser Ala Phe Thr Gly Gln Gln Gly
245 250 255

Tyr Glu Asn Ser Gly Pro Gly Phe Trp Thr Gly Leu Gly Thr Gly
260 265 270

Gly Ile Leu Gly Tyr Leu Phe Gly Ser Asn Arg Ala Ala Thr Pro
275 280 285

Phe Ser Asp Ser Trp Tyr Tyr Pro Ser Tyr Pro Pro Ser Tyr Pro
290 295 300

Gly Thr Trp Asn Arg Ala Tyr Ser Pro Leu His Gly Gly Ser Gly
305 310 315

Ser Tyr Ser Val Cys Ser Asn Ser Asp Thr Lys Thr Arg Thr Ala
320 325 330

Ser Gly Tyr Gly Gly Thr Arg Arg Arg
335